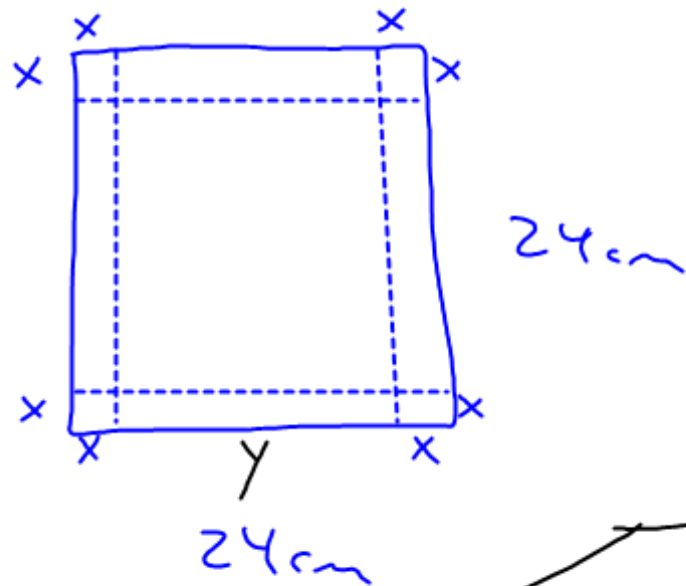


An open box is to be made from a $24\text{cm} \times 24\text{cm}$ piece of material, by cutting squares from each corner and folding up the sides. Find the length x to maximize the volume.



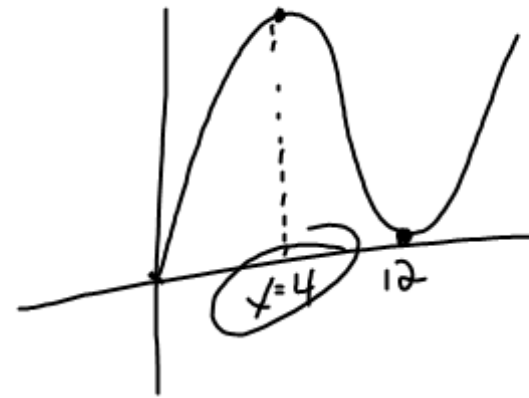
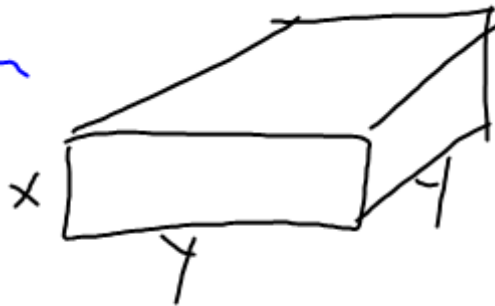
$$24 = 2x + y$$

$$y = 24 - 2x$$

$$V = l \cdot w \cdot h$$

\downarrow \downarrow \downarrow
 $V = (24 - 2x)(24 - 2x)x$

$$D: (0, 12)$$



On the Test

- Linear functions (3 diff forms, \perp & \parallel slopes)
- Domain
- max/min - on calc.
- Increasing/decreasing
- Definition of function
- Difference Quotient
- Inverses
- Transformation
- Combinations & composition,
- Application problem

Practice Test
p. 86

Extra Practice

p. 82
#5, 8, 20, 26, 39-44,
47, 48, 75, 80, 87,
92, 99, 106